CAF Phase II Discussion with the FCC Wireline Competition Bureau

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alaska COMMUNICATIONS®

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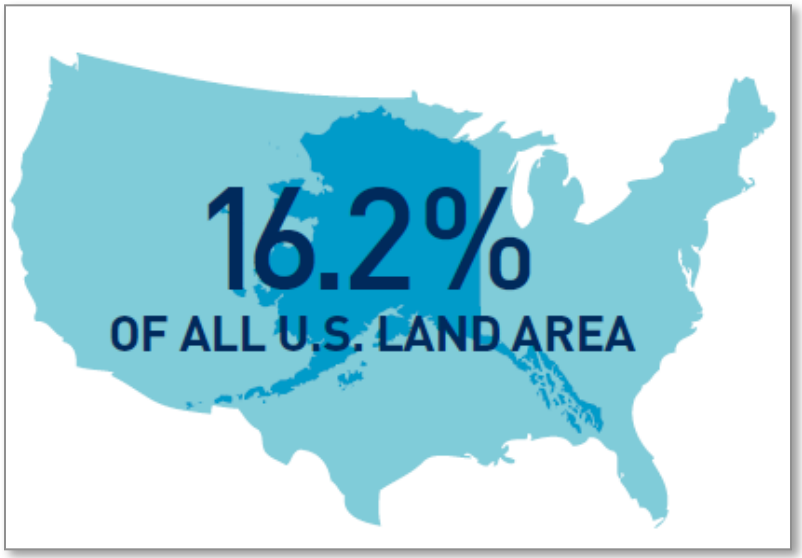
Summary of CAF Phase II Modeling Efforts for Alaska

1. Alaska Communications has invested significantly in developing appropriate high cost support funding models for Alaska over the last 18+ months. ACS has worked diligently to document the changes to the CAM needed to reflect the costs ACS faces in Alaska, including:
   a. The need to include undersea cable costs; and
   b. Changes to the baseline inputs to reflect unique Alaska circumstances.
2. We have pursued several approaches including:
   a. Developing a supplemental model of undersea cable costs;
   b. Building a standalone broadband cost model for Alaska;
   c. Documenting ACS's forward looking costs of broadband materials and deployment for use in the CAM; and
   d. Identifying other aspects of the model that do not reflect conditions in Alaska.
3. We have made several filings with the FCC during this time frame, some of which have been explicitly supported by USTA. In response, the FCC has acknowledged that the CAM should be adjusted to ensure that it provides sufficient support to ACS and the other Insular Carriers.
4. Over the last 2 months, we have shared the details of modeling work and assumptions with experts from USTelecom. We have incorporated many of their suggestions and we believe we have their concurrence regarding the validity of our general approach.
5. The purpose of the presentation today is to share the outcome of our work, seek feedback, and discuss implementation of these adjustments in the CAM.

Let us begin by reminding ourselves about the enormous spaces and few people in our State

Geographically Vast

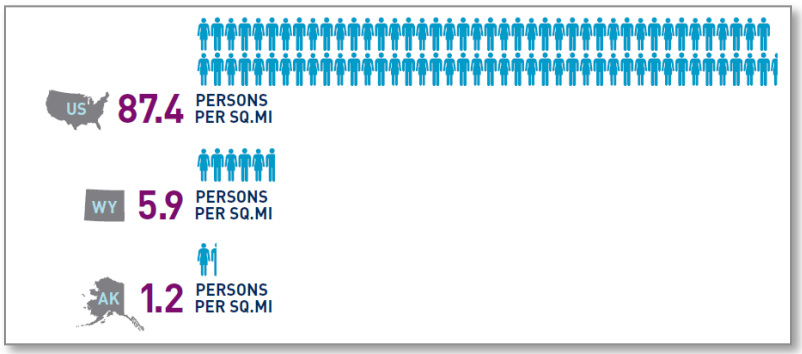
- 570,640 square miles of land represents roughly one-sixth of the total land area of the contiguous United States.
- 6,640 miles of coastline, more than 50% of the entire U.S.
- The state of Alaska is the largest state in the U.S. - more than twice as large as the next largest, Texas.
- Not only is Mt. McKinley the highest mountain in North America, but Alaska has 15 other peaks higher than any in the continental U.S., plus 5,000 glaciers and 3,000 rivers



Source: U.S. Census Bureau, www.census.gov

A Dispersed People

- 2012 population of 731,449, less than 0.25% of the U.S. total population.
- Lowest population density of all states in the U.S. with 1.2 residents per square mile. The next closest is Wyoming with 5.85. The U.S. average is 87.4.



Source: U.S. Census Bureau, www.census.gov

Alaska is a state with a small population of 731,449 spread out over a vast geographic region.

And a reminder that the costs of doing business in Alaska are quite high

Transportation challenges within the State

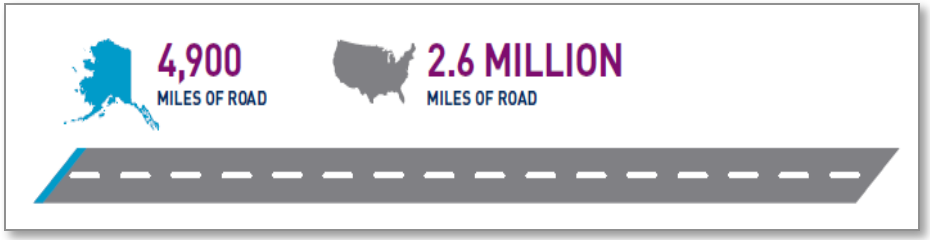
- Juneau is the only state capital not accessible by the road system.
- Alaska has roughly 4,900 miles of paved roads. The U.S. has over 2.6 million.
- 18.3 square miles of land for every lane mile of road. This is less than 1/10 of the density of the state with the next least road density, Wyoming at 1.66 square miles; and less than 1/20 of the U.S. average density of 0.76 square miles for every mile of road.
- There are more than 139 communities in Alaska that are isolated from the public road system and cannot get regular U.S. mail service.

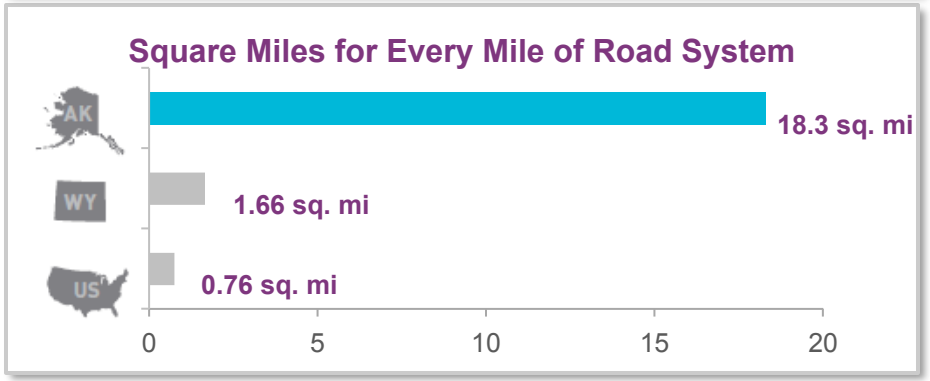
Cost of living is high and varies dramatically

- Energy costs are 68% higher than the national average, 143% higher than the least expensive state, Idaho.
- Energy costs in several rural communities can be 9 times national average.

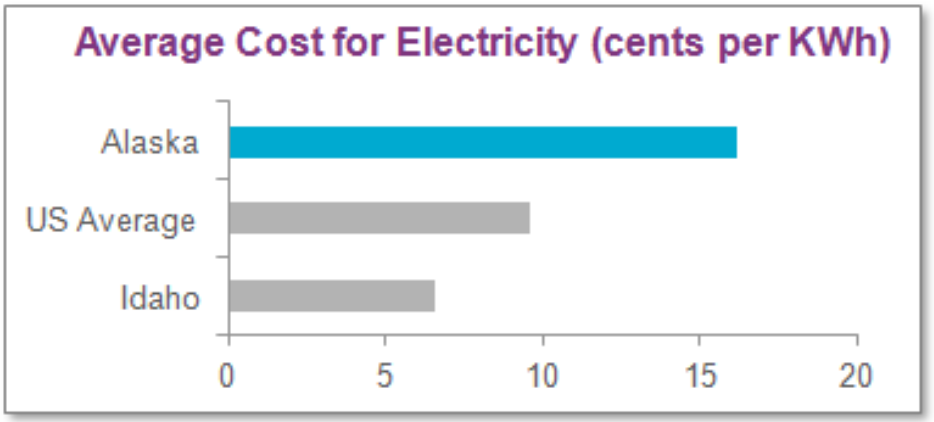
Costs overall are the highest in the Nation

- According to US Army Corps of Engineers data, Alaska communications infrastructure costs are highest in the U.S.
- A 2012 KPMG study found that Anchorage and Honolulu are the highest-cost cities in the nation for business.
- The FCC has acknowledged Alaska's unique challenges.





Source: Department of Transportation & Public Facilities, 2013



Source: U.S. Energy Information Administration

Summary of modeling recommendations

- We have identified a set of changes to the CAM modeling parameters for Alaska that give the Commission the opportunity to achieve a truly historic policy victory, transforming Alaska from among the most underserved states in the nation into a vibrant leader in broadband availability, penetration, and usage.
- These changes, if accepted, could bring broadband meeting CAF Phase II standards to substantially all of ACS's customers located in road-system areas.
- Such support will dramatically reshape the economic, educational, cultural, and social opportunities for hundreds of thousands of Alaskans, including large portions of its native population.
- The changes ACS proposes bring CAM support more closely in line with what is sufficient to reflect the costs of delivering CAF Phase II broadband in Alaska.
- Doing so will also reduce the burden on the RAF in Alaska.
- Implementing these changes will bring the Commission closest to achieving its stated policy goal of universal broadband availability.

Summary of modeling recommendations

- **The changes ACS recommends reflect the extremely high costs of operating in Alaska:**
  a. A ten-year study by the United States Army Corps of Engineers found that construction costs are 19 percent higher in Alaska than in the lower 48 states, and 55 percent higher than in the lowest cost state.
  b. The U.S. Departments of Agriculture and Defense have recognized the high costs of deploying infrastructure and offering services in Alaska due to the short construction season and high transportation, labor and material costs.
  c. ACS faces labor costs that are 20 percent higher than the US average.
- **The changes ACS proposes consist of:**
  a. Changes to the Plant Mix table more accurately to reflect the plant mix in Alaska;
  b. Changes to the soil type information for Alaska to reflect ubiquity of hard rock;
  c. Reclassification of ACS as a "small" company for purposes of the OpEx calculation;
  d. An increase in the Alaska baseline CapEx inputs of 10 percent, to reflect higher costs of broadband equipment and freight to Alaska; and
  e. Addition of undersea cable costs necessary to connect Alaska to Internet exchange points in the lower 48 states, 70 percent of which should be allocated to CAF II broadband serving ACS customer locations.
- **Most of these changes can be implemented within the existing model structure.**
- **In addition, ACS will request up to ten years to complete the CAF Phase II buildout, with appropriate build-out milestones through that period.**

Summary of modeling recommendations

1. **Changes to the Plant Mix table**
   a. ACS has determined that the plant mix for Alaska reflected in the model is not accurate for Alaska.
   b. ACS proposes reducing the proportion of aerial plant, which we are no longer permitted to construct in Anchorage and surrounding areas, and make corresponding increases to the proportion of underground and buried plant.
   c. While the CAM incorporates state-specific plant mix adjustments for many states, it currently applies nationwide averages to Alaska.
2. **Changes to the soil type**
   a. ACS has determined that the nationwide soil type information does not accurately reflect the challenges of building plant in Alaska. To address these challenges, ACS believes that the model should set the soil type in Alaska to "hard rock."
      – Permafrost is a significant factor in and around ACS service areas near Fairbanks.
      – In ACS's southeastern service areas near Juneau, the company faces a large proportion of hard rock.
      – In Anchorage and surrounding areas, the terrain is underlain with a marshy "goo," which provides inadequate physical support for telecommunications plant. As a result ACS must dig down to bedrock, some 5-15 feet deep, and build a foundation back up from that level.
   b. Deployment in any of these conditions is far more expensive than has heretofore been reflected in the model.

Summary of modeling recommendations

3. Reclassification of ACS as a "small" company

a. The model currently classifies ACS as a "medium" company for purposes of determining OpEx, because it falls within the range of 100,000 to 1 million lines.

b. ACS today falls at the very low end of that range and, like most carriers, foresees continuing line losses over the CAF Phase II commitment period.

c. As a single-state carrier serving a geographically isolated and challenging service territory with low population density and limited opportunities to expand, ACS believes that it has far more in common with small companies, and should be classified as such.

d. As reflected in our recent Virtual Workshop filings, ACS has substantial questions about the statistical analysis that the model incorporates to determine the "medium" company OpEx factor.

i. The model's apparent conclusion that "medium" carriers enjoy the greatest operational efficiency among all sizes of carrier is counterintuitive, especially given the corresponding adjustments to the smaller company groups.

ii. The sample used to support this conclusion was small in size, counting separately the operating companies of a single holding company, and, for one year of the sample (2008), AT&T's operating companies in Kentucky, Arkansas, Nevada and Kansas were considered "medium."

iii. For the other two years (2009 and 2010), the "medium" company urban group consisted of only ACS, Cincinnati Bell, Hawaiian Tel and PRTC, reducing the sample size by 60 percent of loops and 50 percent of plant in service, as compared to the 2008 group.

iv. ACS proposes to be reclassified as a "small" company for purposes of the model.

Summary of modeling recommendations

4. **Increasing Alaska baseline CapEx inputs by 10 percent**
   a. ACS faces higher costs of purchasing broadband equipment because of its small size and limited purchasing power. This reflects the geographic isolation of Alaska and geographic constraints on growth.
   b. ACS faces high freight costs to transport equipment to Alaska, and then within the state to various deployment sites. All materials must be barged from Seattle to Anchorage, and then distributed from there to points within the state.
   c. U.S. Army Corps of Engineers, U.S. Department of Defense, and U.S. Department of Agriculture studies confirm these extraordinary costs of infrastructure deployment in Alaska.
   d. These costs are unavoidably associated with providing broadband service in Alaska.
   e. A 10 percent upward adjustment in baseline CapEx, implemented through the regional adjustment factor, is appropriate to capture these costs.
5. **Adding undersea cable costs necessary to connect Alaska to Internet exchange points in the lower 48 states**
   a. Unique among insular areas, ACS had to build and purchase its own submarine cables to connect Alaska to Internet exchange points more than a thousand miles away, in the lower 48 states.
   b. These costs are not currently captured in the model, and must be included to accurately reflect the forward-looking costs of providing broadband in Alaska.

Next Steps

1. Adding undersea cable costs to the CAM

a. ACS has created its own model of undersea cable transport costs, filed in 2012, which should guide the Commission's modeling of undersea cable costs.

b. ACS has worked with CostQuest to support its modeling of undersea cable costs in the CAM.

c. The costs (CapEx and OpEx) of undersea cables are different from terrestrial middle mile networks, and ACS believes that the CAM should reflect these differences:

i. ACS believes that 70 percent of undersea cable costs should be allocated to CAF Phase II broadband and should be spread across ACS customer locations only, not the entire state of Alaska.

- While current consumer traffic on our submarine cable is meaningful, with the increased broadband coverage proposed under the CAF Phase II program, we anticipate a significant portion of our submarine cable capacity will be allocated to transporting traffic generated by consumer broadband usage.
- Revenue opportunities that create an economic return without high cost support are generally limited to business customers in certain geographic locations. We expect expanded broadband availability under CAF Phase II program and ongoing usage growth to make residential broadband the principal consumer of our undersea cable bandwidth.

ii. The cost factor used in the CAM should reflect the forward looking costs ACS faces in operating and maintaining its undersea cables.

2. Setting the soil type for Alaska to "hard rock"

a. The CAM uses a national average blend of soil types, so Alaska will need a new regional adjustment

b. ACS believes that Alaska should be considered 100 percent "hard rock."

3. Changing the CAM plant mix, CapEx, and company size factors to reflect Alaska costs

Deployment Timeframe

6. ACS seeks additional time, up to ten years to complete the CAF Phase II buildout, with support continuing through that period.

   a. Currently, the FCC has indicated a 5 year window towards fulfilling build obligations associated with this support level. Given the practical constraints of short build seasons and labor availability, we are requesting a 10-year period to meet our build obligations.

   b. ACS cannot complete the required buildout within five years. ACS faces short construction season, in some locations only 3-4 months, in which it can pursue large-scale deployment projects.

   c. ACS requires specialized engineers and contractors that have experience with telecommunications plant deployment in Alaska.

   d. ACS anticipates substantial shortages of workers, equipment, fiber optic cable, and other broadband plant materials after the FCC finalizes CAF Phase II funding.

   e. Because ACS's capital spending will follow a more lengthy trajectory, it will face additional operating expenses over the longer buildout period.

   f. If the FCC grants 10 years for ACS to complete its CAF Phase II buildout, ACS would propose to reduce its annual support amount over that longer period by an amount to be determined through additional analysis.

   g. ACS would propose appropriate build-out milestones over the 10-year period.

Conclusion

- **We intend to submit documentation of our proposed adjustments to the CAM inputs through the Virtual Workshop.**
- **We ask for your support in having CostQuest incorporate those changes into the CAM.**
- **ACS would welcome the opportunity to work with CostQuest to model our submarine cable costs and incorporate those costs into the CAM.**


THANK YOU